UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,891	11/26/2003	Melissa D. Boyd	10970792-4	1137

7590 06/23/2006

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P. O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER	
HUFFMAN, JULIAN D	

ART UNIT	PAPER NUMBER
2853	

DATE MAILED: 06/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/723,891	BOYD ET AL.	
	Examiner	Art Unit	
	Julian D. Huffman	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *20-22,26-31,35-38,41-43 and 45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *20-22,26-31 and 35-37* is/are allowed.

6)☒ Claim(s) *38,42,43 and 45* is/are rejected.

7)☒ Claim(s) *41* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 30 January 2006 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 38, 42, 43 and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Cowger et al. (U.S. 5,565,900).

Cowger et al. discloses :

With regards to claim 38, a method of forming a fluid ejection assembly, the method comprising :

forming a platform (fig. 4) with a fluid inlet (fig. 4, element 32), a fluid outlet (34), a first plurality of fluid feed slots (figs. 4 and 6, element 72), a second plurality of fluid

feed slots (74), and a fluid manifold therein (101, column 2, lines 20-32), including fluidically coupling each of the first plurality of fluid feed slots (72) and the second plurality of fluid feed slots (74) with the fluid inlet and the fluid outlet via the fluid manifold (manifold 101 is located between the fluid feed slots 72, 74 and the fluid inlet 32 and outlet 34 and couples the two together); and

mounting a plurality of fluid ejection devices (50) on the platform, including fluidically coupling each of the fluid ejection devices with one of at least one of the first plurality of fluid feed slots and at least one of the second plurality of fluid feed slots (the nozzles of the ejection device 50 are connected to the feed slots so that ink is supplied for ejection),

wherein fluidically coupling each of the first plurality of fluid feed slots (72) and the second plurality of fluid feed slots (74) with the fluid inlet and the fluid outlet includes defining a first fluid flow path from the fluid inlet (a flow path is formed inside the pipe which extends from the fluid inlet), a first plurality of fluid flow paths (81, 91) each communicating with the first fluid flow path and one of the first plurality of fluid feed slots (the flow paths 81 and 91 communicate with the first fluid flow path formed by the pipe near inlet 32 and the fluid feed slots 72 and 74), a second fluid flow path to the fluid outlet (the pipe forms a fluid flow path to the fluid outlet 34), a second plurality of fluid flow paths (81, 91 of a second head chip) each communicating with one of the second plurality of fluid feed slots (72, 74 of a second head chip) and the second fluid flow path (a plurality of flow paths 81 and 91 are formed for each printhead to flow ink to the feed slots of each printhead, any of these second fluid flow paths 81 and 91 communicate

with the fluid feed slots 72 and 74 of a chip and the second fluid flow path which is formed by the pipe connecting to the fluid outlet), and a third plurality of fluid feed paths each communicating with one of the first plurality of fluid feed slots and one of the second plurality of fluid feed slots (81, 83, 84 or 91).

With regards to claim 42, fluidically coupling each of the fluid ejection devices with at least one of the first plurality of fluid feed slots and the second plurality of fluid feed slots includes fluidically coupling a fluid refill slot of each of the fluid ejection devices with at least one of the first plurality of fluid feed slots and the second plurality of fluid feed slots (refill slots connect the nozzles of the printhead to the feed slots 72 and 74).

With regards to claim 43, a method of circulating fluid between a reservoir and a plurality of fluid ejection devices each mounted on a platform, the method comprising:

communicating a fluid inlet (32) and a fluid outlet (34) of the platform with the reservoir (column 2, lines 28-29);

supplying a fluid manifold (101, column 2, lines 30-32) of the platform with fluid from the reservoir (column 2, lines 28-29) via the fluid inlet;

distributing the fluid to a first plurality of fluid feed slots (72) and a second plurality of fluid feed slots (74) of the platform via the fluid manifold (using via 81, ink is supplied to the feed slots from the manifold, column 4, lines 14-16);

supplying a fluid refill slot of each of the fluid ejection devices with a portion of the fluid via one of at least one of the first plurality of fluid feed slots and at least one of the

second plurality of fluid feed slots (feed slots 72 and 74 supply ink to nozzles of printhead); and

returning a portion of the fluid to the reservoir via the fluid manifold and the fluid outlet (column 2, lines 32-35),

wherein distributing, supplying, and returning the fluid includes distributing the fluid from the fluid inlet (32) to each of the first plurality of fluid feed slots (72) via a first fluid flow path from the fluid inlet (the pipe connected to the fluid inlet 32 forms a first fluid flow path from the fluid inlet) and a first plurality of fluid flow paths (81 and 91) each communicating with the first fluid flow path and one of the first plurality of fluid feed slots (the flow paths 81 and 91 communicate with the first fluid flow path formed by the pipe near inlet 32 and the fluid feed slots 72 and 74), from each of the second plurality of fluid feed slots (74) to the fluid outlet (34) via a second fluid flow path to the fluid outlet (pipe connected to outlet 34 forms a fluid flow path) and a second plurality of fluid flow paths (81, 91 of a second head chip) each communicating with one of the second plurality of fluid feed slots (72, 74 of a second head chip) and the second fluid flow path (a plurality of flow paths 81 and 91 are formed for each printhead to flow ink to the feed slots of each printhead, any of these second fluid flow paths 81 and 91 communicate with the fluid feed slots 72 and 74 of a chip and the second fluid flow path which is formed by the pipe connecting to the fluid outlet), and between each of the first plurality of fluid feed slots and the second plurality of fluid feed slots via a third plurality of fluid flow paths (first and second feed slots are coupled by pathways 84 and 91 as seen in fig. 6).

With regards to claim 45, supplying the fluid refill slot of each of the fluid ejection devices includes feeding a fluid chamber of each of the fluid ejection devices with a portion of the fluid (fluid is fed into firing chamber for ejection through refill slot).

Allowable Subject Matter

4. Claims 20-22, 26-31, 35-37 are allowed.

Claim 41 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

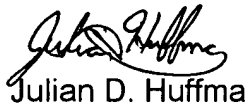
5. Applicant's arguments filed 30 January 2006 have been fully considered but they are not persuasive. Cowger et al. discloses the claim limitations as discussed above.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian D. Huffman whose telephone number is (571) 272-2147. The examiner can normally be reached on 10:00a.m.-6:30p.m. Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Julian D. Huffman
Art Unit 2853
20 June 2006